



**Glow-worm**  
The energy you need

## Instructions for use

### EnviroSorb



# Contents

## Contents

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## 1 Safety

### 1.1 Action-related warnings

#### Classification of action-related warnings

The action-related warnings are classified in accordance with the severity of the possible danger using the following warning signs and signal words:

#### Warning symbols and signal words

##### **Danger!**

Imminent danger to life or risk of severe personal injury

##### **Danger!**

Risk of death from electric shock

##### **Warning.**

Risk of minor personal injury

##### **Caution.**

Risk of material or environmental damage

### 1.2 General safety information

#### 1.2.1 Danger caused by improper operation

Improper operation may present a danger to you and others, and cause material damage.

- ▶ Carefully read the enclosed instructions and all other applicable documents, particu-

larly the "Safety" section and the warnings.

#### 1.2.2 Risk of death due to explosions and scaldings from brine fluid

The brine fluid ethylene and propylene glycol is extremely flammable, both as liquid and steam. A potentially explosive combination of steam/air may form.

- ▶ Keep away from heat, sparks, naked flames and hot surfaces.
- ▶ Prevent steam/air mixtures from forming. Keep brine fluid vessels closed.
- ▶ Observe the safety data sheet that accompanies the brine fluid.

#### 1.2.3 Danger due to improper use

There is a risk of injury or death to the user or others, or of damage to the product and other property in the event of improper use or use for which it is not intended.

Only use the product in accordance with the provisions.

# 1 Safety

## 1.2.4 Preventing the risk of injury from corrosive brine fluid

The brine fluid ethylene glycol is harmful to health.

- ▶ Avoid contact with the skin and eyes.
- ▶ Always wear gloves and protective goggles.
- ▶ Do not inhale or swallow.
- ▶ Observe the safety data sheet that accompanies the brine fluid.

## 1.2.5 Preventing the risk of injury due to scalding from hot and cold components

Particularly in the coolant circuit, the components of the heat pump can reach high temperatures or extremely low temperatures.

- ▶ Do not touch any uninsulated pipelines in any part of the heating installation.
- ▶ Do not remove any casing sections.

## 1.2.6 Risk of being scalded by hot drinking water

There is a risk of scalding at the hot water draw-off points if the hot water temperatures are greater than 50 °C. Young children and elderly persons are

particularly at risk, even at lower temperatures.

- ▶ Select the temperature so that nobody is at risk.

## 1.2.7 Risk of death due to lack of safety devices

A lack of safety devices (e.g. expansion relief valve, expansion vessel) can lead to potentially fatal scalding and other injuries, e.g. due to explosions.

- ▶ Have your competent person check that all required isolator devices are present in your heating installation.

## 1.2.8 Preventing the risk of injury from freezing as a result of touching coolant

The heat pump is delivered with an operational filling of R410A coolant. This is a chlorine-free coolant which does not affect the Earth's ozone layer. R410A is neither a fire hazard nor an explosion risk. Escaping coolant may cause freezing if the exit point is touched.

- ▶ If coolant escapes, do not touch any components of the heat pump.
- ▶ Do not inhale any steam or gases that escape from the coolant circuit as a result of leaks.

- ▶ Avoid skin or eye contact with the coolant.
- ▶ In the event of skin or eye contact with the coolant, seek medical advice.

### **1.2.9 Danger due to changes to the product environment**

There is a risk of injury or death to the user or others, or of damage to the product and other property, in the event of changes to the product environment.

Changes must not be made to the following equipment:

- The heat pump
- The heat pump environment
- The drain line and expansion relief valve for the heating water
- The water and electricity supply lines
- The heat pump's condensate drain pipework
- The structural conditions that may affect the operational safety of the product.

### **1.2.10 Risk of injury and material damage due to incorrect maintenance or repairs**

As a result of unauthorised interference or tampering with the product or parts of the system,

the operational safety of the product can no longer be ensured and the guarantee therefore becomes void.

- ▶ Never interfere or tamper with the product or other parts of the system.
- ▶ Never try to carry out maintenance work or repairs on the product yourself.
- ▶ Do not damage or remove any seals on components. Only qualified competent persons and factory service personnel are authorised to make modifications to sealed components.
- ▶ Have inspection and maintenance work carried out by a competent person.

### **1.2.11 Frost damage due to an unsuitable installation site**

Frost poses a risk of damage to the product and the whole heating installation.

- ▶ You should therefore ensure that the heating installation always remains in operation during freezing conditions and that all rooms are sufficiently heated.

Even if rooms, or the whole dwelling, are not in use for certain periods, the heating must remain in operation.

# 1 Safety

Frost protection and monitoring devices are only active while the product is connected to the power supply. The product must be connected to the power supply.

## 1.2.12 Frost damage caused by insufficient room temperature

If the room temperature is set too low in individual rooms, it cannot be ruled out that sections of the heating installation might be damaged by frost.

- ▶ If you are going to be away during a cold period, ensure that the heating installation remains in operation and that the rooms are sufficiently heated.
- ▶ You must observe the frost protection instructions.

## 1.2.13 Frost damage caused by a power cut

During installation, your competent person connected your product to the power mains. If the power supply is cut, it is possible that parts of the heating installation may become damaged by frost. If you want to use an emergency power generator to maintain the operational readiness of the product

during a power cut, note the following:

- ▶ Contact your competent person for advice on installing an emergency power generator.
- ▶ Ensure that the technical values of this generator (frequency, voltage, earthing) match those of the power mains.

## 1.2.14 Malfunction caused by incorrect system pressure

To avoid operating the system with too little water and thus prevent resulting damage, note the following:

- ▶ Check the system pressure of the heating installation at regular intervals.
- ▶ You must observe the system pressure instructions.

## 1.2.15 Avoid environmental damage caused by escaping coolant

The heat pump contains R410A coolant. The coolant must not be allowed to escape into the atmosphere. R410A is a fluorinated greenhouse gas covered by the Kyoto Protocol, with a GWP of 1725 (GWP = Global Warming Potential). If it escapes into the atmosphere, its impact is 1725 times stronger

than the natural greenhouse gas CO<sub>2</sub>.

Before the heat pump is disposed of, the coolant it contains must be completely drained into a suitable vessel so that it can then be recycled or disposed of in accordance with the regulations.

- ▶ Ensure that only officially certified competent persons with appropriate protective equipment perform maintenance work or access the coolant circuit.
- ▶ The coolant in the heat pump must only be recycled or disposed of by certified competent persons in accordance with the regulations.

## 1.3 Intended use

### 1.3.1 State-of-the-art technology

**Applicability:** Great Britain

The **EnviroSorb** heat pump systems are constructed using state-of-the-art technology in accordance with the recognised safety rules and regulations.

However, there is a risk of injury or death to the user or others, or of damage to the product and other property, in the event of improper use or use for which it is not intended.

### 1.3.2 User qualification

This product can be used by children over 8 years old and also by persons with limited physical, sensory or mental capabilities or insufficient experience and/or knowledge if they are supervised or have been provided with instructions on how to safely use the product, and they understand the risks resulting from using the product. Children must not play with the product. Cleaning and user maintenance work must not be carried out by children unless they are supervised.

### 1.3.3 Intended use

**Applicability:** Great Britain

The **EnviroSorb** heat pump is designed for use as a heat generator for closed heating installations. Operation of the pump outside the application limits results in the heat pump being switched off by the internal control and safety devices.

### 1.3.4 Improper use

Any use which is not explicitly mentioned in the section "Intended use" is deemed improper.

Any other or additional use does not comply with the intended use. Any direct commercial

# 1 Safety

or industrial use is also deemed to be improper.

## 1.3.5 Observing other applicable documents

**Applicability:** Great Britain

Intended use also includes the observance of accompanying operating, installation and servicing instructions for Glow worm products, as well as for other parts and components of the system.

## 1.3.6 Liability and secondary clauses

The manufacturer/supplier is not liable for any claims or damage resulting from improper use. The user alone bears the risk.

### **Caution.**

Improper use of any kind is prohibited.

## 1.4 CE label

 CE labelling shows that, based on the type overview, the products comply with the basic requirements of the following directives.

## 2 Notes on the documentation

### 2.1 Observing other applicable documents

- You must observe all operating instructions enclosed with the system components.

### 2.2 Storing documents

- Keep this manual and all other applicable documents safe for future use.

### 2.3 Applicability of the instructions

These instructions apply only for the following heat pumps, hereinafter referred to as the "product":

**Applicability:** Great Britain

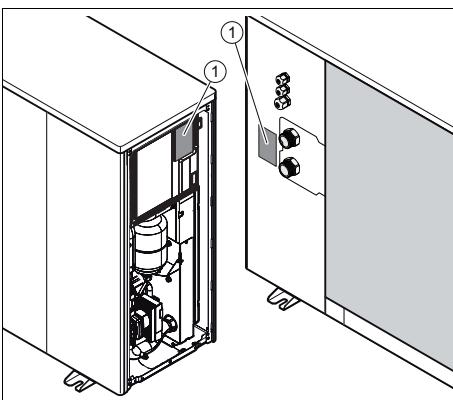
Type designation	Art. no.
EnviroSORB3 5	0010014421
EnviroSORB3 8	0010011967
EnviroSORB3 11	0010011968
EnviroSORB3 15	0010014422

The product's article number is part of the serial number (→ Page 9) (**Applicability:** Great Britain).

## 3 Product description

### 3.1 Type designation and serial number

**Applicability:** Great Britain



The type designation and serial number are on the identification plate (1).

## 4 Operation

### 4.1 Activating frost protection

- To prevent the product from freezing, ensure that the product is switched on.

### 4.2 Checks and maintenance carried out by the operator

#### 4.2.1 Cleaning the product

1. Switch the product off before you clean it.
2. Clean the product's casing with a damp cloth and a little soap. Never use scouring or cleaning agents which could damage the casing or the operator control elements.
3. Do not clean the product with a high-pressure cleaner.
4. At regular intervals, check that no branches or leaves have gathered around the product.

# 4 Operation

## 4.2.2 Checking the maintenance plan



### Danger!

#### Risk of injury and risk of material damage due to neglected or incorrect maintenance and repairs.

Neglected or incorrect maintenance work or repairs may lead to personal injury or damage to the product.

- ▶ Never attempt to carry out maintenance work or repairs on the product.
- ▶ Employ an authorised heating specialist company to complete such work. We recommend making a maintenance agreement.

1. Regular inspection/maintenance of your product by a competent person is a prerequisite for ensuring that the system is constantly ready and safe for operation, reliable and has a long service life.



### Note

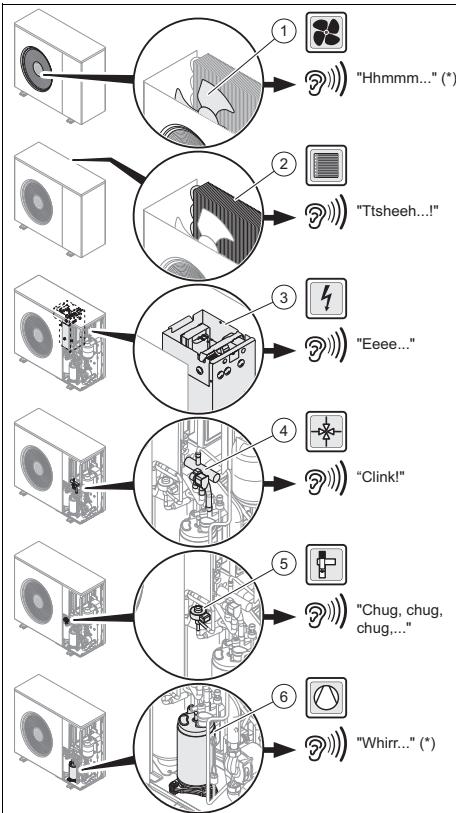
Failure to carry out maintenance and repair work, and non-compliance with the specified inspection, maintenance and replacement intervals, leads to a loss of potential guarantee claims. We recommend making a maintenance agreement with a competent person.

2. The maintenance intervals depend on the local conditions and the use of the product.
3. Have parts that are relevant to the function and safety replaced by a competent person.

## 4.3 Having the product temporarily decommissioned

- ▶ If, during long periods of absence, the power supply to the dwelling and to the product is interrupted, have the heating system drained by your competent person or have it sufficiently protected against frost.

## 4.4 Operating noises



- \* Permanent operating noises

The noises listed do not constitute a fault with the heat pump.

In various operating modes, the noises come from the heat pump (Start, Thawing, Stop).

## 5 Troubleshooting

### 5.1 Detecting and rectifying faults

This section shows all of the fault messages that can be rectified without seeking help from the competent person in order to start up the product again.

The other fault messages must be checked by a competent person.

- If the product still does not function after the fault has been rectified, contact your competent person.

Fault	Cause	Remedy
The product no longer works.	The power supply has been disconnected	Ensure that there has not been a power cut and that the product is correctly connected to the power supply. When the power supply is re-established, the product automatically starts up. If a fault is still present, contact your competent person.
Noises (hissing, knocking, humming)	If the heating demand stops, this may lead to bubbling and whistling noises. These noises are caused by the coolant. When the product starts up or stops, this may lead to creaking noises. These noises are caused by the casing as it expands or contracts when the temperature changes. If the product is functioning, this may lead to humming noises. These noises are caused by the compressor when the product is in heating mode.	
The product releases steam.	In winter and during the thawing procedure, steam may escape from the product. (The heat of the product melts the ice that has formed.)	
Other faults		Consult your competent person.

# 6 Decommissioning

## 6 Decommissioning

### 6.1 Having the product permanently decommissioned

- ▶ Have a competent person permanently decommission the product.

## 7 Recycling and disposal

### 7.1 Recycling and disposal

- ▶ The competent person who installed your product is responsible for the disposal of the packaging.



If the product or any batteries that it contains are marked with this symbol, they contain substances hazardous to human health and to the environment.

- ▶ In this case, do not dispose of the product and any batteries that it contains with your normal household waste.
- ▶ Instead, bring the product and any batteries to a collection centre for batteries and electrical or electronic appliances.

### 7.2 Arranging disposal of coolant

**Applicability:** Great Britain

The **EnviroSorb** heat pump is filled with the coolant R410A.

- ▶ Coolant must only be disposed of by qualified competent persons.
- ▶ Observe the general safety information.

## 8 Guarantee and customer service

### 8.1 Guarantee

**Applicability:** Great Britain

For information on the manufacturer's guarantee, you can write to the contact address that is provided on the back page.

### 8.2 Customer service

**Applicability:** Great Britain

For contact details for our customer service department, you can write to the address that is provided on the back page, or you can visit [www.glow-worm.co.uk](http://www.glow-worm.co.uk).







## GLOW-WORM

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Because of our constant endeavour for  
improvement, details may vary slightly  
from those shown in these instructions.

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